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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,290	06/16/2005	Kenji Sato	017525-0187	2470

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FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER	
LAVARIAS, ARNEL C	

ART UNIT	PAPER NUMBER
2872	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/539,290	SATO, KENJI	
	Examiner	Art Unit	
	Arnel C. Lavarias	2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *4/4/08,6/16/05*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39* is/are pending in the application.

4a) Of the above claim(s) *2,3,5-7,9,10,12,13,15-34 and 36-39* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,8,11 and 14* is/are rejected.

7)☒ Claim(s) *4 and 35* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 June 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/16/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I (Claims 1, 4, 8, 11, 14, 35) in the reply filed on 4/4/08 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

2. Claims 2-3, 5-7, 9-10, 12-13, 15-34, 36-39 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 4/4/08.

Priority

3. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on 12/17/02. It is noted, however, that applicant has not filed a certified copy of the 2002-365101 application as required by 35 U.S.C. 119(b).

Drawings

4. The originally filed drawings were received on 6/16/05. These drawings are acceptable.

Specification

5. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification. Examples of such errors are set forth below.

6. The disclosure is objected to because of the following informalities:

Page 36, line 5- 'sizd' should read 'sized'

Page 40, line 2- '124' should read '125'.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Hendrix et al. (U.S. Patent Application Publication US 2004/0070834 A1).

Hendrix et al. discloses a light dispersion filter (See for example Abstract; Figures 6-8, 10) for applying desired dispersion to an incident optical signal, comprising three or more optically transparent layers (See for example spacers between 110/125, 135/145, 155/165, 175/190 in Figure 6; 225, 235, 245, 255, 265 in Figure 7; spacers between each

of R1, R2, R3, R4, R5, R6, R7 in Figure 8; spacers between each of 310, 320, 330, 340, 350, 360, 370 in Figure 10) each having a value equal to the value of a product of a refractive index and a thickness of said optically transparent layer (It is noted that this limitation is seen to be inherent for each of the disclosed spacers, since each spacer necessarily has a refractive index and a physical thickness, and thus each spacer must necessarily have an optical thickness as defined above), and transmitting light; and a plurality of partially reflective layers (See for example 110, 125, 135, 145, 155, 165, 175, 190 in Figure 6; 216, 226, 236, 246, 256, 266 in Figure 7; R1, R2, R3, R4, R5, R6, R7 in Figure 8; 310, 320, 330, 340, 350, 360, 370 in Figure 10) having predetermined reflectivities, and arranged alternately with said optically transparent layers, wherein the reflectivity is highest on a partially reflective layer disposed near the center of said light dispersion filter in a direction of thickness of said light dispersion filter, and the reflectivities of the respective partially reflective layers are gradually lower toward both end faces of said light dispersion filter (See specifically Figures 8 and 10). Hendrix et al. additionally discloses the optically transparent layer being a dielectric substrate (See for example spacers between 110/125, 135/145, 155/165, 175/190 in Figure 6; 225, 235, 245, 255, 265 in Figure 7; spacers between each of R1, R2, R3, R4, R5, R6, R7 in Figure 8; spacers between each of 310, 320, 330, 340, 350, 360, 370 in Figure 10; Paragraphs 0038-0039, 0043, 0047); and the partially reflective layer being a thin film or a multi-layered film composed of a plurality of laminated thin films (See for example 110, 125, 135, 145, 155, 165, 175, 190 in Figure 6; 216, 226, 236, 246, 256, 266 in Figure 7; R1,

R2, R3, R4, R5, R6, R7 in Figure 8; 310, 320, 330, 340, 350, 360, 370 in Figure 10; Paragraphs 0038-0039, 0043, 0047).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hendrix et al. in view of Scalora (U.S. Patent No. 6396617).

Hendrix et al. discloses the invention as set forth above in Claim 1, except for the optically transparent layer being a semiconductor substrate; and the light dispersion filter comprising light amplifying means in said semiconductor substrate for amplifying an incident optical signal. However, Scalora teaches a conventional multilayer thin film device (See for example Abstract; Figures 4, 6, 9, 11), wherein the optically transparent layer may be a semiconductor substrate (See for example 1104, 1108 in Figure 11); and the light dispersion filter comprises light amplifying means in said semiconductor substrate for amplifying an incident optical signal (See for example doped regions in 1104 in Figure 11; col. 15, lines 8-29). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the optically transparent layer be a semiconductor substrate; and the light dispersion filter comprise light amplifying means in said semiconductor substrate for amplifying an incident optical

signal, as taught by Scalora, in the filter of Hendrix et al., for the purpose of counteracting the effects of light attenuation within the filter device by providing an adjustable optical gain to the incident light signal.

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hendrix et al. in view of Miller (U.S. Patent No. 5238738).

Hendrix et al. discloses the invention as set forth above in Claim 1, except for the optically transparent layers and the partially reflective layers being bonded by an adhesive having the same refractive index as said optically transparent layers. However, such index matching adhesives are well known and conventionally used in multilayer thin film stacks. For example, Miller teaches a conventional multilayer thin film filter stack (See for example Abstract; Figures 1-2), wherein the various transparent spacers (See for example 12, 16 in Figure 1; 28, 30, 32, 34 in Figure 2) and partially reflective layers (See for example 14, 13, 15 in Figure 1; 35-37, 38, 39, 41, 40, 43, 45 in Figure 2) are all adhered together using an index matching optical cement (See for example col. 3, lines 43-54; col. 4, lines 37-62). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the optically transparent layers and the partially reflective layers be bonded by an adhesive having the same refractive index as said optically transparent layers, as taught by Miller, in the filter of Hendrix et al., for the purpose of minimizing unwanted back reflections which may produce unwanted ripples in the output transmission and/or reflection spectrum of the filter.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnel C. Lavarias whose telephone number is 571-272-2315. The examiner can normally be reached on M-F 10:00 AM - 6:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on 571-272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Arnel C. Lavarias
Primary Examiner
Group Art Unit 2872
5/6/08

/Arnel C. Lavarias/
Primary Examiner, Art Unit 2872